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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/669,863

09/24/2003

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1508.68361

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07/09/2007

EXAMINER

LEWIS, DAVID LEE

ART UNIT

PAPER NUMBER

2629

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/669,863

Applicant(s)

HIRAKI ET AL.

Examiner

David L. Lewis

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2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6-14 and 18-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 23-25 is/are allowed.
- 6) ☒ Claim(s) 6-14 and 18-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 9/24/03; 6/5/06.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

- 1. Claims 6-14 and 18-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamazaki (5576729).**

As in claim 6, Yamazaki teaches of a display panel driving method of receiving image signals, a horizontal synchronizing signal and a vertical synchronizing signal, or an enable signal, and then supplying data signals, figure 1 item CK and LP, wherein said ck data represents both horizontal and vertical information necessary to drive said display as is known in the art.

which are generated from the image signals to change into a positive polarity and a negative polarity, to data bus lines of a display panel, **figure 1 item FRI**,

comprising the step of: storing polarity patterns in a polarity pattern storing portion, **figure 1 item 36**;

and detecting a polarity of data signals, which are supplied to the data bus lines, in compliance with the polarity patterns read from the polarity pattern storing portion, **figure 1 item 38**.

As in claim 7, Yamazaki teaches of a further comprising the step of: storing a plurality of polarity patterns in the polarity pattern storing portion, **figure 1 items 34 and 36**; and detecting the polarity of the data signals, which are supplied to the data bus lines, by outputting only one polarity pattern from the polarity pattern storing portion according to the image signals, **figure 1 item 38**,

As in claim 8, Yamazaki teaches of a further comprising the steps of: outputting any one polarity pattern of the plurality of polarity patterns from the polarity pattern storing portion, to supply the data signals with the polarity according to the polarity pattern to the data bus lines, **figure 1 item 38 & DT**; and detecting whether or not the polarity pattern being output from the polarity pattern storing portion is similar to the image signals, to switch the polarity pattern which is output from the polarity pattern storing portion based on a detection result, **figure 1 item 38**.

As in claim 9, Yamazaki teaches of a wherein the step of detecting whether or not the polarity pattern being output from the polarity pattern storing portion is similar to the image signals counts a coincidence number of times between them in a unit time or every predetermined data number, figure 1 item 40, and compares a counted value with a predetermined value, figure 1 item 42.

As in claim 10, Yamazaki teaches of a display panel driver circuit for receiving image signals, a horizontal synchronizing signal and a vertical synchronizing signal, or an enable signal, and then supplying data signals, figure 1 item CK and LP, wherein said ck data represents both horizontal and vertical information necessary to drive said display as is known in the art.

which are generated from the image signals to change into a positive polarity and a negative polarity, to data bus lines of a display panel, **figure 1 item FRI**

comprising: a polarity pattern storing portion for storing a polarity pattern, **figure 1 item 36**;

a temporarily storing portion for storing the polarity pattern being output from the polarity pattern storing portion, and then outputting it as a polarity signal, **figure 1 item 20**; wherein said latch temporarily holds

and a data signal outputting portion for receiving the image signal and outputting the data signal with a polarity according to the polarity signal output from the temporarily storing portion, **figure 1 item 22**.

As in claim 11, Yamazaki teaches of a wherein the polarity pattern storing portion stores data of two frame bit number, which consist of data for the odd-numbered frame and data for the even-numbered frame which has inverted logical values of the data for the odd-numbered frame, as a set of polarity patterns, column 9 lines 53-67.

As in claim 12, Yamazaki teaches of a further comprising: a polarity pattern switching portion for detecting whether or not the polarity pattern being output from the polarity pattern storing portion is similar to the image signal, and then switching the polarity pattern which is output from the polarity pattern storing portion based on a detection result, **column 9 lines 53-67.**

As in claim 13, Yamazaki teaches of a further comprising: a temporarily storing portion for storing the polarity pattern for one horizontal synchronization period output from the polarity pattern storing portion and outputting it as the polarity signal, **column 8 lines 25-33**; a polarity signal inverting portion for inverting the polarity of the polarity signal in synchronism with the horizontal synchronizing signal, **figure 1 item 44**; and a data signal outputting portion for receiving the image signal and outputting the data signal with a polarity according to the polarity signal being output from the temporarily storing portion, **figure 1 item 22.**

As in claim 14, Yamazaki teaches of a wherein the polarity pattern storing portion stores plural sets of polarity patterns, while using the data with the bit number for horizontal synchronization period as a set, **column 8 lines 25-33.**

As in claim 18, Yamazaki teaches of a display panel driving method of receiving image signals, a horizontal synchronizing signal and a vertical synchronizing signal, or an enable signal, and then supplying data signals, **figure 1 item CK and LP**, wherein said ck data represents both horizontal and vertical information necessary to drive said display as is known in the art.

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which are generated from the image signals to change into a positive polarity and a negative polarity, to data bus lines of a display panel, **figure 1 item FRI**

comprising the steps of: partitioning a display screen into a plurality of blocks, **figure 6 item 36, figure 10 item 36, figures 94/96/98/100**, wherein each block includes 6 pixels, as well as flicker between varying lines;

calculating a rate of flicker patterns contained in at least one block, **figure 1 item 38**;

and changing a polarity pattern, which detects a polarity of the data signal supplied to the data bus lines, from a first polarity pattern to a second polarity pattern when the rate exceeds a predetermined value, **figure 1 items 42 and 44**.

As in claim 19, Yamazaki teaches of a wherein the polarity pattern is changed into the second polarity pattern when a number of blocks out of a plurality of blocks, in which the rate of flicker patterns is in excess of the predetermined value, exceeds a predetermined value, **figure 1 items 42 and 44, column 14-31**.

As in claim 20, Yamazaki teaches of a wherein, after the polarity pattern is changed from the first polarity pattern to the second polarity pattern, the polarity pattern is returned to the first polarity pattern when the rate of flicker patterns contained in the block over a predetermined frame period is less than a

predetermined value, **column 10 lines 5-30**, wherein the counters are reset when latch pulse LP is inputted.

As in claim 21, Yamazaki teaches of a wherein partition positions of the blocks are changed frame by frame, **column 9 lines 9-15**.

As in claim 23, Yamazaki teaches of a wherein the flicker patterns are detected every image signals for at least two pixels which are adjacent in a horizontal direction, **column 9 lines 50-60**.

Allowable Subject Matter

2. **Claims 23-25** are allowed over the prior art of record. Said dynamic range designating portion is not taught by the prior art.

Conclusion

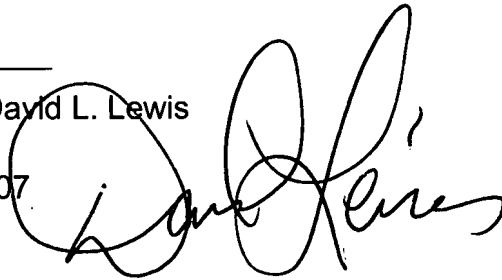
3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **David L. Lewis** whose telephone number is **(571) 272-7673**. The examiner can normally be reached on MT and THF from 8 to 5. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala, can be reached on **(571) 272-7681**. Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the Group receptionist whose telephone number is (571)-273-8300.

4. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Examiner: David L. Lewis

June 25, 2007

A handwritten signature in black ink, appearing to read "David L. Lewis", is written over the printed name and date.